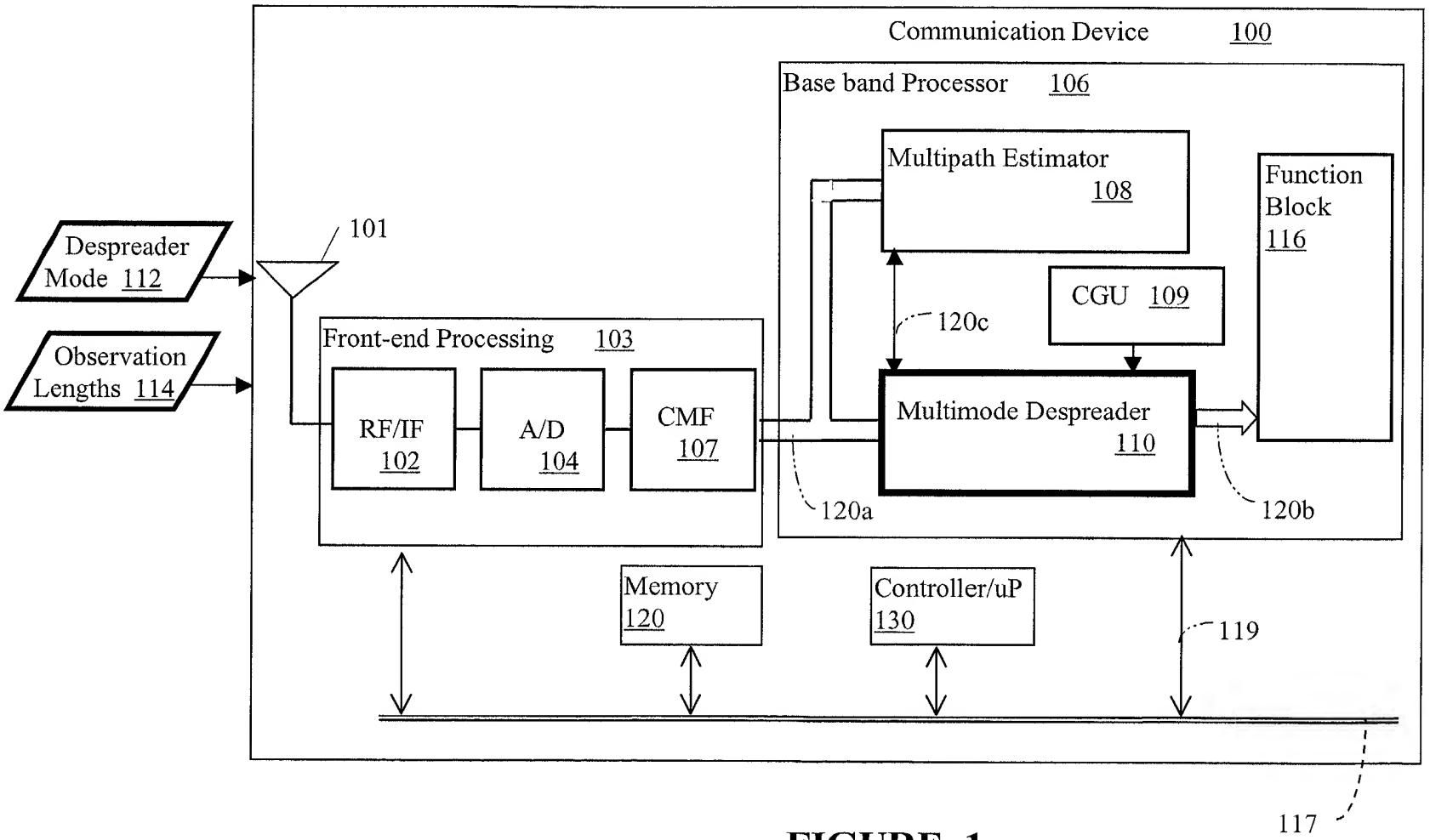
Communication Device 100
Base band Processor 106
Multipath Estimator 108
Function Block 116
CGU 109
120c
Despreader Mode 112
Observation Lengths 114
101
Front-end Processing 103
RF/IF 102
A/D 104
CMF 107
Multimode Despreader 110
120a
120b
Memory 120
Controller/uP 130
119
117

FIGURE 1

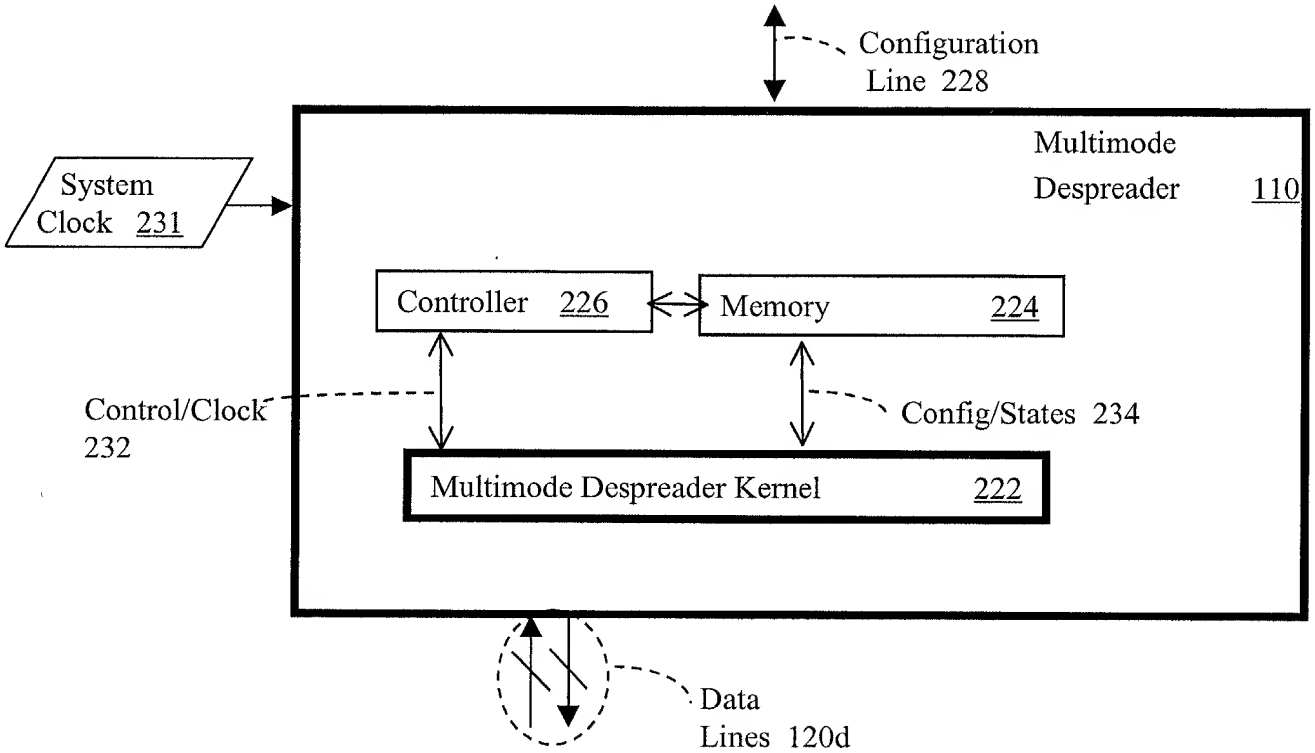
Configuration
Line 228
Multimode
Despreader 110
System
Clock 231
Controller 226
Memory 224
Control/Clock
232
Config/States 234
Multimode Despreader Kernel 222
Data
Lines 120d

FIGURE 2A

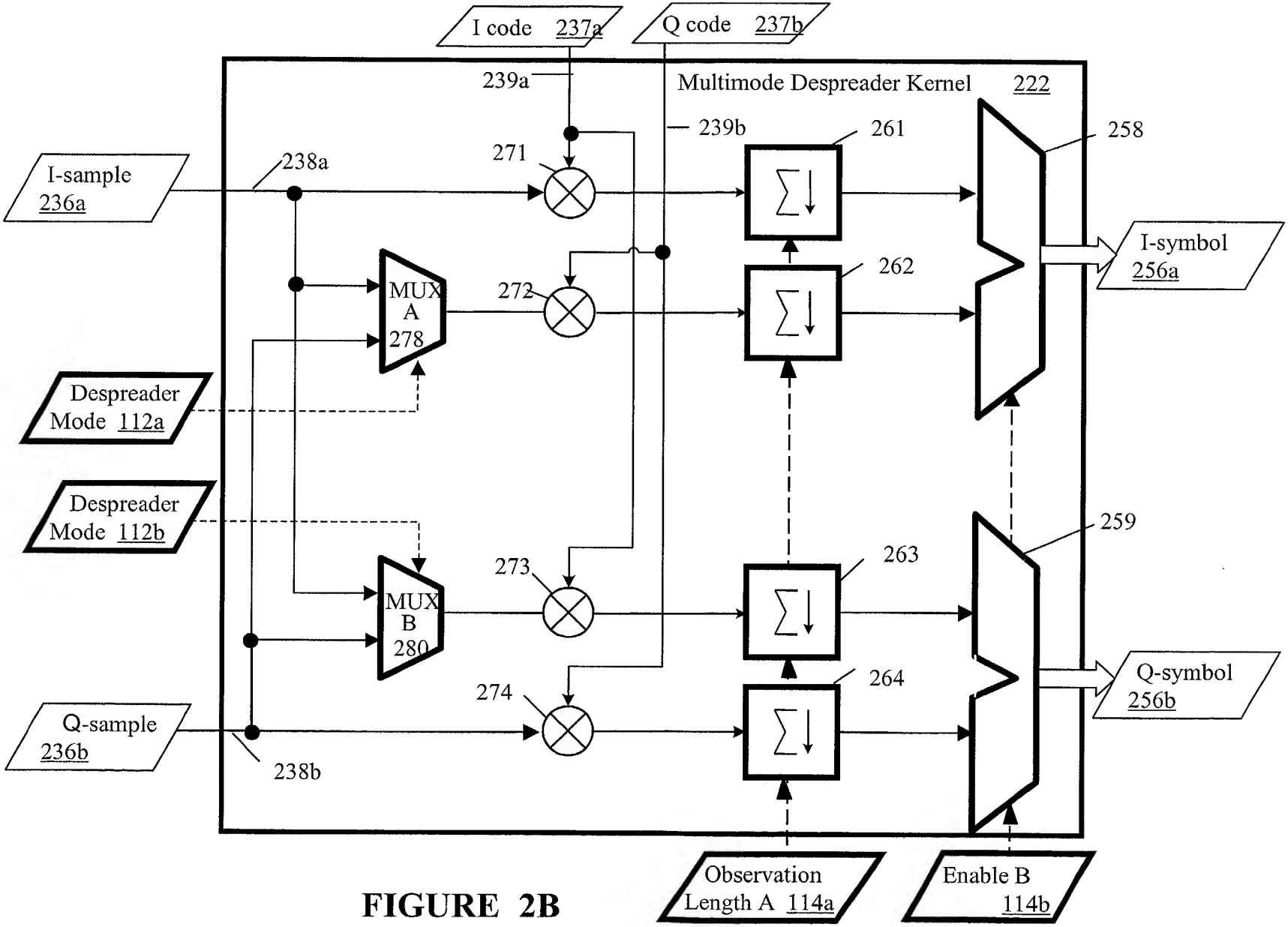
I code 237a
Q code 237b
239a
Multimode Despreader Kernel 222
239b
261
258
271
238a
I-sample 236a
I-symbol 256a
262
272
MUX A 278
Despreader Mode 112a
Despreader Mode 112b
259
263
273
MUX B 280
264
274
Q-symbol 256b
Q-sample 236b
238b
Observation Length A 114a
Enable B 114b

FIGURE 2B

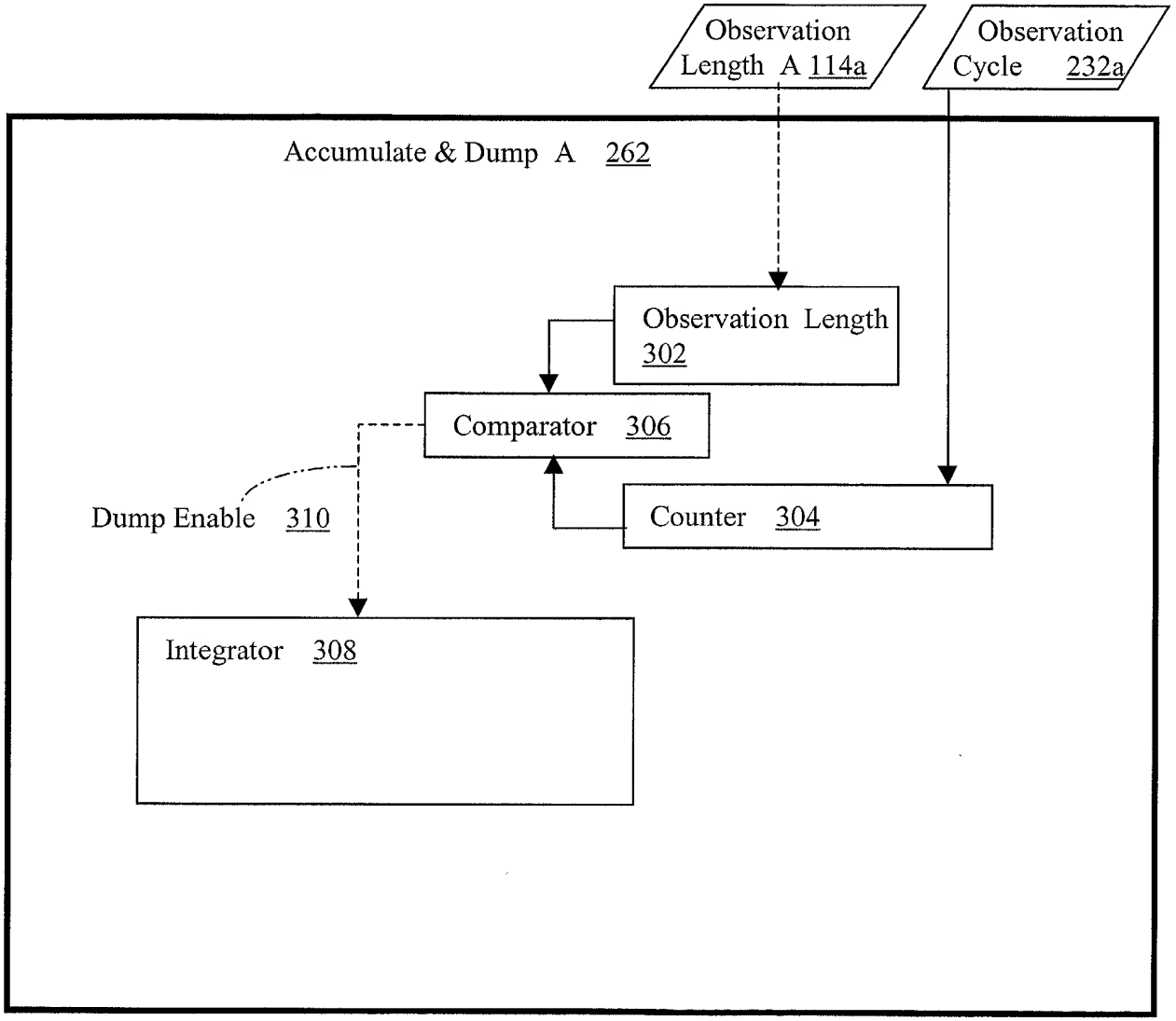
Observation Length A 114a
Observation Cycle 232a
Accumulate & Dump A 262
Observation Length 302
Comparator 306
Dump Enable 310
Counter 304
Integrator 308

FIGURE 3

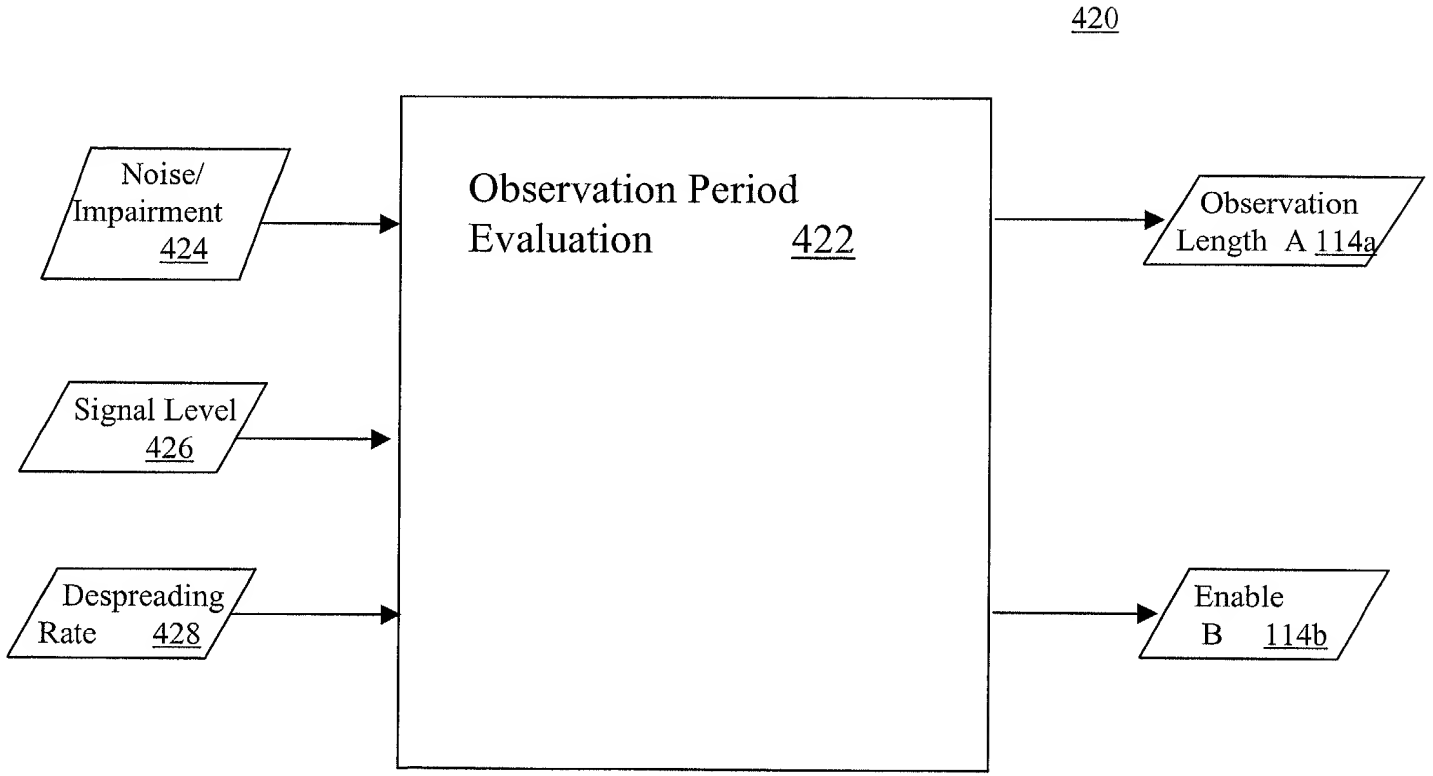
420
Noise/
Impairment
424
Signal Level
426
Despreading
Rate 428
Observation Period
Evaluation 422
Observation
Length A 114a
Enable
B 114b

FIGURE 4

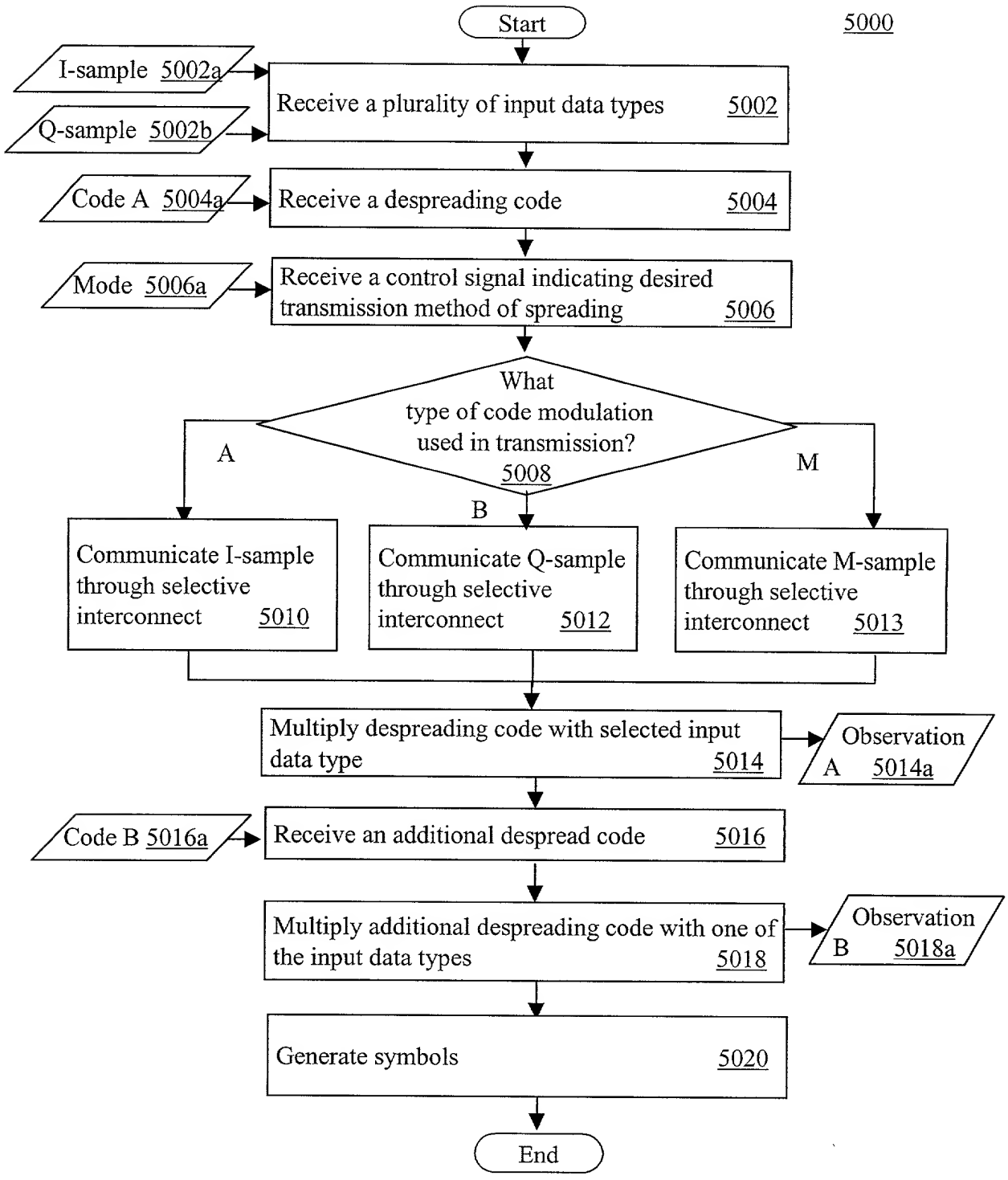
Start
5000
I-sample 5002a
Q-sample 5002b
Receive a plurality of input data types 5002
Code A 5004a
Receive a despreading code 5004
Mode 5006a
Receive a control signal indicating desired transmission method of spreading 5006
What type of code modulation used in transmission? 5008
A
B
M
Communicate I-sample through selective interconnect 5010
Communicate Q-sample through selective interconnect 5012
Communicate M-sample through selective interconnect 5013
Multiply despreading code with selected input data type 5014
Observation A 5014a
Code B 5016a
Receive an additional despread code 5016
Multiply additional despreading code with one of the input data types 5018
Observation B 5018a
Generate symbols 5020
End

FIGURE 5A

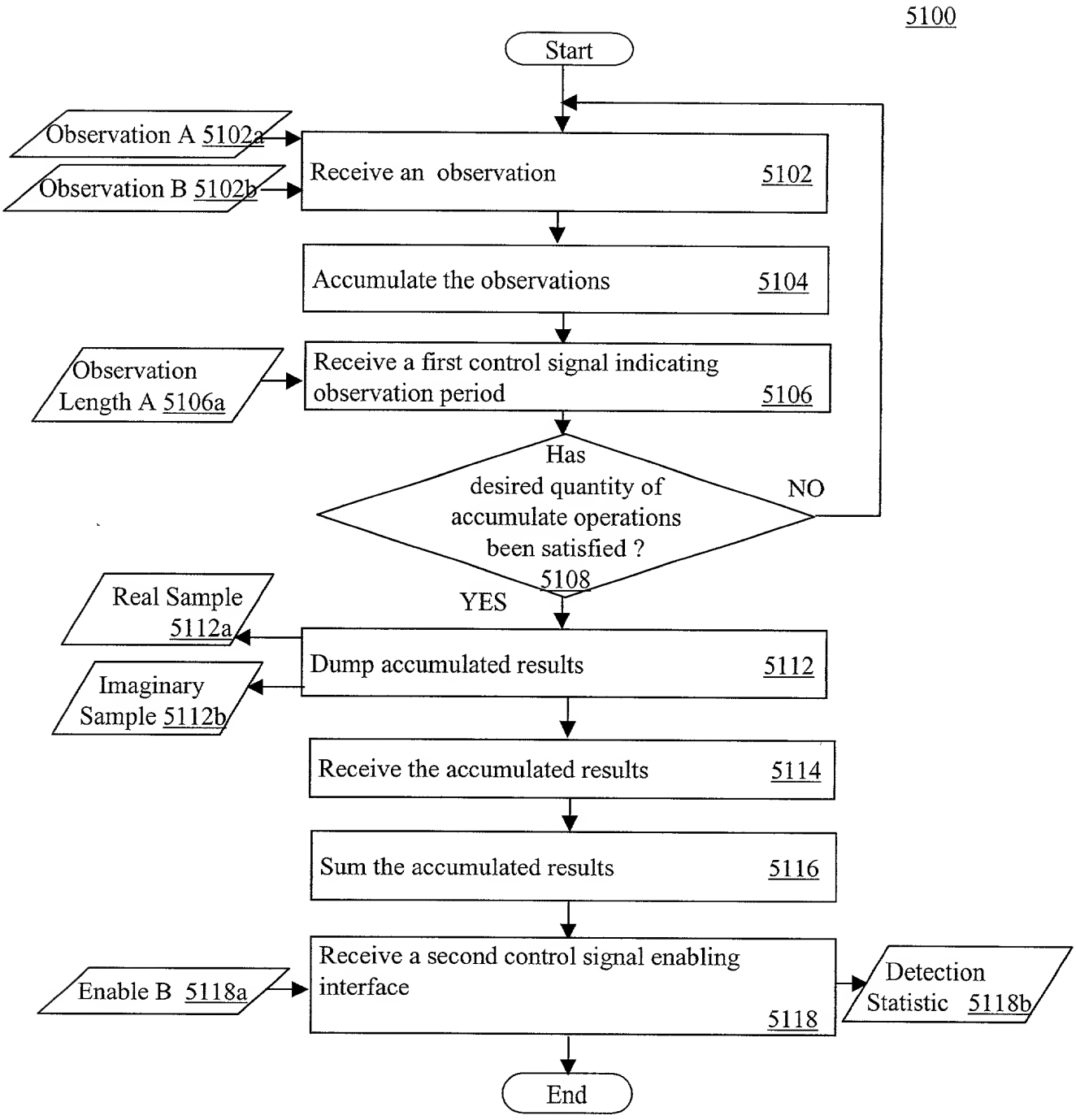
5100
Start
Observation A 5102a
Observation B 5102b
Receive an observation 5102
Accumulate the observations 5104
Observation Length A 5106a
Receive a first control signal indicating observation period 5106
Has desired quantity of accumulate operations been satisfied ? 5108
NO
YES
Real Sample 5112a
Imaginary Sample 5112b
Dump accumulated results 5112
Receive the accumulated results 5114
Sum the accumulated results 5116
Enable B 5118a
Receive a second control signal enabling interface 5118
Detection Statistic 5118b
End

FIGURE 5B